

ABSTRACT

A high temperature resistant seal structure having no problem that an actuator is exposed to a high temperature environment to lead to an operation disorder, a valve having a reduced valve drive force and an aerospace craft side thruster are provided. In a high temperature resistant seal structure, provided in a casing into which a high temperature fluid is supplied; comprising a shaft through hole portion into which a shaft to be driven in an axial direction of the shaft is inserted passing through the shaft through hole portion, a liner, made of graphite, comprising a cavity formed therein and slidable holes provided at both end portions of the cavity is provided being inserted into the shaft through hole portion so that the shaft slidably passes through the slidable holes with a seal state being maintained between the shaft and the liner and a relief hole is provided being bored in a lateral direction relative to the axial direction of the shaft so that the cavity and the outside of the casing communicate with each other. By this construction, leakage of the high temperature fluid in the shaft axial direction is prevented, the surrounding parts and components connected to a shaft end portion are prevented from being exposed to the high temperature fluid and a shaft drive force is reduced. Also, the valve and aerospace craft side thruster comprising the present seal structure can be made smaller and lighter and reliability thereof can be enhanced.